

March-24-15 10:10:39 AM

130727

Page 1

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 25/03/2015 **Start Qty:** 10.00

10

Cust Item ID:

Required Date: 26/03/2015 **Req'd Qty:** 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

OC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D5101	A

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blank 2.400" long

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 5AXIS

Memo

0.00

HAAS CNC vertical machine #5

1- Mill as per Folio FB353

DWG Rev: A

FOLIO REV: A4

2-Début per dwg

DAS
14
9-89

15/03/58

Work Order ID 130727

March-24-15 10:10:40 AM

130727

Page 3

Item ID: D5101-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Crossbolt Spacer Assembly
 Start Date: 25/03/2015 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 26/03/2015 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
170									
QC	Memo	0.00							
Quality Control									MAR 31 2015
180	Identify as per dwg & Stock Location: <u>ST/55A</u>	0.00							DAS 26 9-89
180									
Packaging	Memo	0.00							
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

MS-3-31

Picklist Print

March-24-15 10:10:38 AM

Page 1

Work Order ID: 130727

130727

Parent Item: D5101-041

D5101-041

Parent Item Name: Crossbolt Spacer Assembly

Start Date: 25/03/2015

Required Date: 26/03/2015

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 14-12-18 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MDELRLNB1.000X04.0
00

Purchased

No

f

11.2500

3

MDFI RINB1 000X04 000

Delrin Bar

Location

Loc Qty

Loc Code

MAT011

11.25

m131210

11.25

3

9/15/03/24

MS21209F7-15

Purchased

No

Each

192.0000

40

MS21209F7-15

Heli-Coil, Locking

DAS
28
9-89
MAR 30 2015

Location

Loc Qty

Loc Code

299

3

m131170

3

ST299

189

m131340

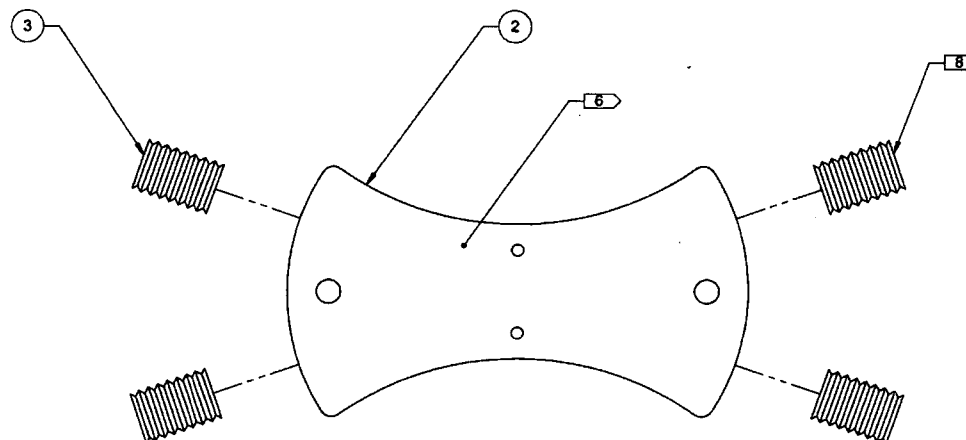
9

m131410

180

40

ITEM	QTY	P/N	DESCRIPTION
1	X	D5101-041	CROSSBOLT SPACER ASSEMBLY
2	1	D5101-1	CROSSBOLT SPACER
3	4	MS21209F7-15	HELICOIL, LOCKING



D5101-041 CROSSBOLT SPACER ASSEMBLY

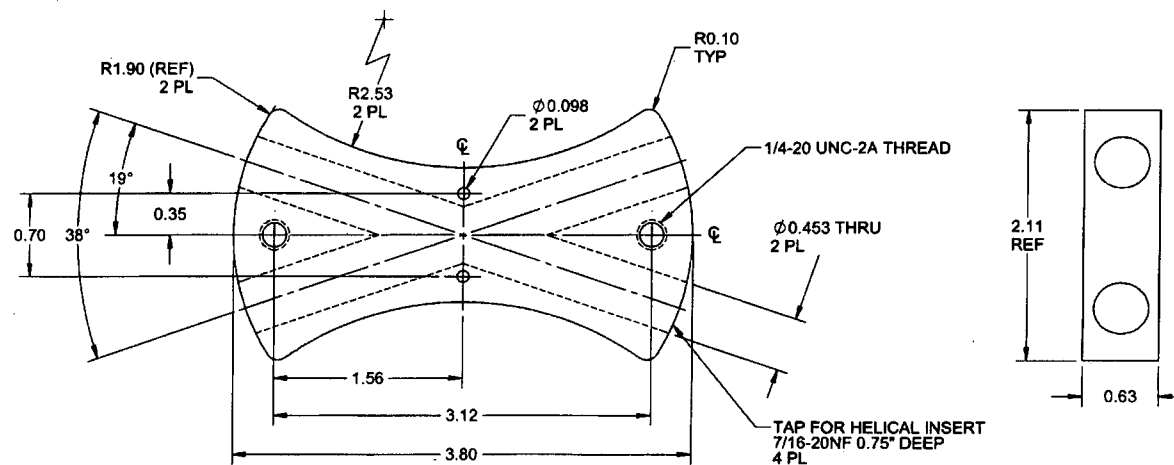
RELEASED

2014 NOV 24
EN 14-628

- NOTES:**
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.6
 - 7) WEIGHT: 0.15 lbs
 - 8) INSTALL MS21209F7-15 HELICOIL FLUSH WITH ARC SURFACE

APPROVED

A	NEW ISSUE	AK	14.08.07
REV.	DESCRIPTION	BY	DATE
DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK	DRAWING NO. REV. A	
CHECKED	VS	D5101 SHEET 1 OF 4	
MFG. APPR.	JLM	TITLE SCALE	
APPROVED	HS	CROSSBOLT SPACER NTS	
DE APPR.	DS	DATE 14.08.07	
COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			



D5101-1 CROSSBOLT SPACER

RELEASED

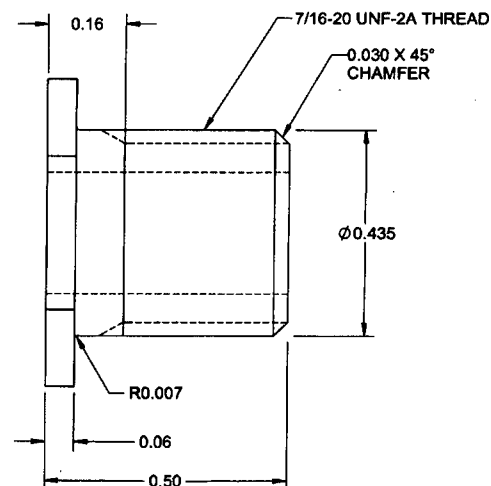
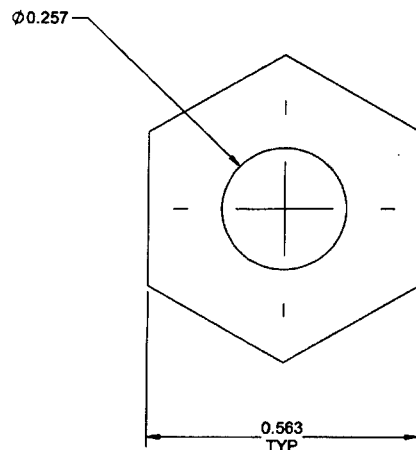
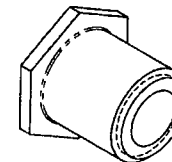
2014 NOV 24 *qp*

NOTES:

- 1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL
REF DART SPEC M-DELRIN-B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.12 lbs

APPROVED

DESIGN	DC	DART AEROSPACE LTD	
DRAWN	AK	HAWKESBURY, ONTARIO, CANADA	
CHECKED	VS	DRAWING NO.	REV. A
MFG. APPR.	JLM	D5101	SHEET 2 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CROSSBOLT SPACER	NTS
DATE	14.08.07	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D5101-3 INSERT

RELEASED

2014 NOV 24 *q*

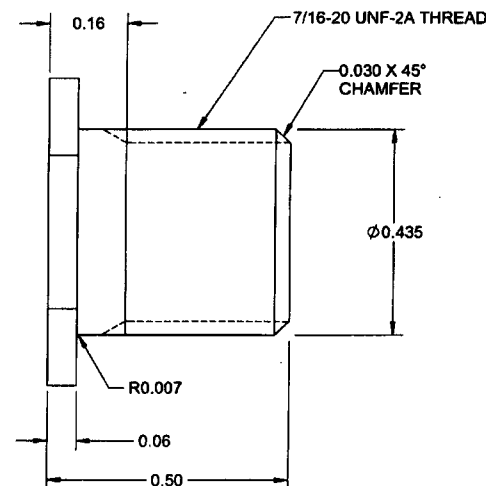
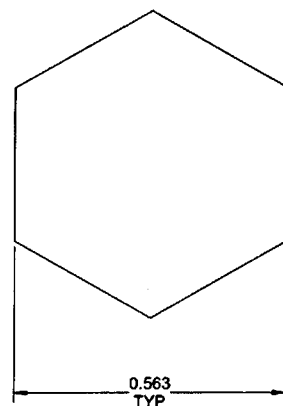
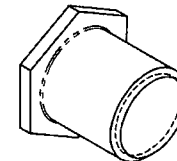
NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6R
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.005 lbs

APPROVED

DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	VS	DRAWING NO. D5101	REV. A
MFG. APPR.	JLM	SHEET 3 OF 4	
APPROVED	HS	SCALE	
DE APPR.	DS	TITLE CROSSBOLT SPACER	
DATE	14.08.07	NTS	

COPYRIGHT © 2014 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD.



D5101-5 INSERT

RELEASED

2014 NOV 24 *ap*

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6R
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.008 lbs

APPROVED

DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK		
CHECKED	VS	DRAWING NO. D5101	REV. A
MFG. APPR.	JLM	SHEET 4 OF 4	
APPROVED	HS	TITLE	
DE APPR.	DS	CROSSBOLT SPACER	
DATE	14.08.07	SCALE NTS	

COPYRIGHT © 2014 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART AEROSPACE LTD		Work Order:	130727
Description: CROSSBOLT SPACER		Part Number:	DS101-1
Inspection Dwg: DS101		Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.80	+/- .030	3.799	✓		Vern	GA-13
3.12	+/- .030	3.116	✓		"	"
1.56	+/- .030	1.558	✓		H-6	31006
0.35	+/- .030	0.350	✓		"	"
0.70	+/- .030	0.700	✓		"	"
38°	+/- 1/2°	37.8°	✓		Angle M.	CNC-17
19°	+/- 1/2°	18.9°	✓		"	"
R2.53	+/- .030	R2.53	✓		R-6	ref.
φ0.098	+ .004 / - .001	φ0.099	✓		Vern	GA-13
R0.10	+/- .030	R0.100	✓		R-6	ref.
1/4-20UNC2A	N/A	1/4-20UNC2A	✓		1/4-20 bolt	ref.
φ0.453	+ .006 / - .001	φ0.453	✓		Vern	GA-13
7/16-20NF(HC)	N/A	7/16-20NF(HC)	✓		T-6 gage	ref.
0.75 deep	+/- .030	0.750	✓		"	"
0.63	+/- .030	0.630	✓		Vern	GA-13

Measured by: J.A.	DAS 08	Audited by: 20	Preliminary Approval:
Date: 15/03/26	9-89	Date: 15-03-27	Date:

Rev	Date	Change	Reviewed by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15